

causing the stem cells to differentiate; and
selecting said one cell lineage based on said marker
gene.

19. The method of claim 18, comprising:
transfecting the stem cells to introduce (i) a first
marker gene enabling selection of transfected stem cells
from non-transfected stem cells and (ii) a second marker
gene enabling selection of said one cell lineage from said
other cell lineages;
selecting transfected stem cells based on the first
marker gene;
causing the selected stem cells to differentiate; and
selecting said one cell lineage based on said marker
gene.

20. The method of claim 19 wherein said one cell
lineage is cardiomyocytes.

21. A non-human animal having a stable graft of
skeletal myoblasts or cardiomyocytes incorporated in
myocardial tissue of the animal.

22. The animal of claim 21 which is a mammal.

23. The animal of claim 22 wherein the graft is
non-tumorigenic.

24. The animal of claim 23 wherein the graft includes
cardiomyocytes.

25. The animal of claim 23 wherein the graft includes
skeletal myoblasts.

add a2) add B3)

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